IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Nanjunda Swamy S. Jamadagni	Examiner: Mai Tran
Serial No.:	10/034,689	Group Art Unit: 2129
Filed:	December 28, 2001	Docket: 1488.015US1
Title:	A METHOD OF NETWORK MODELING AND PREDICTIVE EVENT CORRELATION IN A COMMUNICATION SYSTEM BY THE USE OF CONTEXTUAL FUZZY COGNITIVE MAPS	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated below:

§102 Rejection of the Claims

Claims 1-18, 22-31, 33-39, 41-58, and 62-63 were rejected under 35 U.S.C. § 102(b) for anticipation by Ndousse et al., "Computational Intelligence for Distributed Fault Management in Networks Using Fuzzy Cognitive Maps". There is clear error in the rejection, as independent claims 1, 25, 33, includes "sampling generated incoming real-time events from the system.", and Ndousse et al., does not describe such element. Independent claim 41 also includes "sample generated incoming real-time events from the network". Since an element of each of the independent claims is lacking from the reference, a proper prima facie case of anticipation has not been established, and the rejection should be withdrawn.

Independent claims 1, 25 and 33 recites "sampling generated incoming real-time events from the system." Independent claim 41 also samples generated incoming real time events. No mention of such sampling is found in the reference. The Office Action points to page 1558, left col., lines 5-8 of Ndousse et al., as describing this element. Such langauge, if referring to the abstract, indicates that "The dynamic features of FCM are exploited to characterize the time-varying aspects of network faults, while its graphical features are used as a framework for representing the distributed properties of fault propagation." No mention of sampling is found in this language. If the reference is to the Introduction, that recites: "Its essential features provide a rapid and intelligent solution to the following critical issues. – Diagnosis and location of the faulty components of the network." This language also fails to describe sampling. Since at least one element has not been properly shown to be in the reference, a proper prima facie case of anticipation has not been established, and the rejection should be withdrawn.

The claims also utilize a computer to form the fuzzy cognitive maps, expressly in claims 25 and 33, and by implication in claims 1 and 41, since they sample system generated real-time events and map the sampled events to diagnose problems. This would simply be impossible to do in real time by an expert, or within a time frame acceptable for diagnosing problems. In Ndousse et al., FCMs are constructed by experts, not by a computer. This is illustrated by the fact that no computer implemented methodology for creating FCMs is disclosed, the fact that FIG.s 4 and 5 illustrated FCMs formed by two experts, and the text in the second column of page

1560, beginning at the heading "IV. Aggregation FCM" recites that the causal viewpoint of each expert leads to an FCM with different causal weights. As such, the claims clearly distinguish from Ndousse et al., and the rejection should be withdrawn.

Additionally, claim 1 recites forming fuzzy cognitive maps (FCMs) including causally equivalent FCM fragments using network element interdependencies derived from a database. The corresponding text describing this element is found in the application at least on page 8 with reference to event analyzer 140.

Claims 1, 25 and 33 also distinguish from Ndousse et al., in that the FCM fragments are formed. The Office Action cites page 1559, left col., lines 36-37 of Ndousse et al., as describing this feature. However, that language does not appear to describe the creation of the FCM fragments, but merely describes that "the FCM denote faulty managed objects or concepts, while the arcs denote fault propagation between managed objects or network fault concepts." This is clearly not describing how to create an FCM fragment, but only what it represents. Claims 1, 25 and 33 describes how to create one using computer elements. Still further, no mention in Ndousse et al., was found regarding the use of event notifications that convey the state of one or more managed objects to create FCM fragments as claimed. arguments.

§103 Rejection of the Claims

Claims 19-21, 32, 40, and 59-61 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ndousse as applied to claims 1-18, 22-31, 33-39, 41-58, and 62-63 above, in view of Zhi-Qiang Liu et al., "Contextual Fuzzy Cognitive Map for Decision Support in Geographic Information Systems", and further in view of Thierry Marchant, "Cognitive Maps and Fuzzy Implications." There is clear error in the rejection, as each of the rejected claims depend from claims already believed allowable.

CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at (612) 373-6972 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 12 day of May, 2006.

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Signature